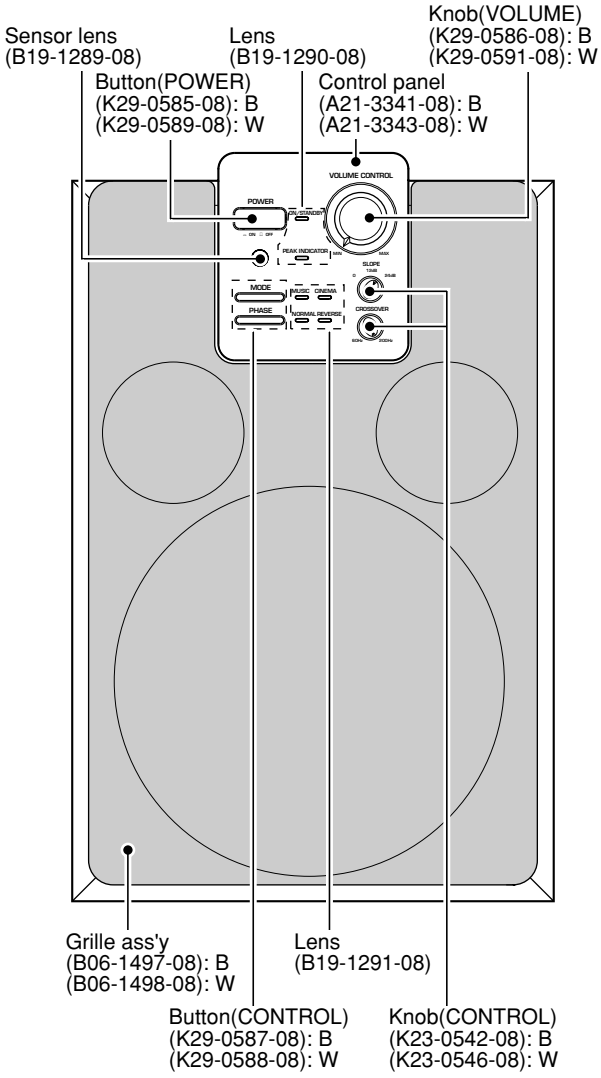
POWER SUBWOOFER

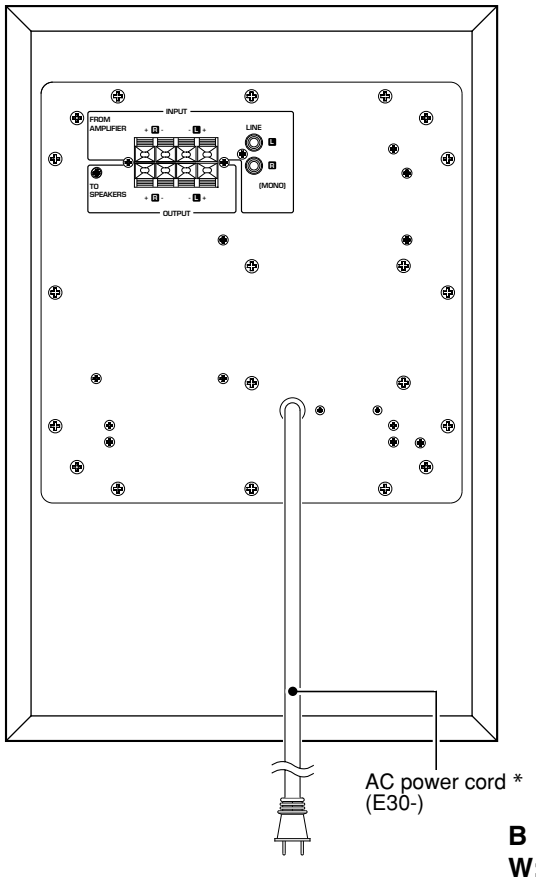
SW-505D-S/505D-W

SERVICE MANUAL

KENWOOD

© 2000-10/B51-5676-00 (K/K) 1907





B : Black
W: White

*** Refer to parts list on page 9.**

SPECIFICATIONS

Type .....Subwoofer system with built-in amplifier
(Magnetically shielded)

[Amplifier]

Rated Output Power .....150 W RMS, 30 Hz ~ 200 Hz, 4 Ω
Phase Switching .....NORMAL, REVERSE
Input Sensitivity & Input Impedance
RCA-type pin-plug jack .....100 mV /12 kΩ
200 mV /12 kΩ (MONO Input)
Push-type terminals .....1.7 V (15 kΩ)

[Speaker]

Enclosure .....Bass-Reflex, Floor Standing Type
Speaker Unit .....250 mm (10") Cone type
Nominal Impedance .....4 Ω

[General]

Rated Power Consumption .....50 W
Dimensions .....Width : 294 mm (11-9/16")
Height: 457 mm (18")
Depth : 415 mm (16-5/16")
Net Weight .....15.2 kg (33.5 lb)

Notes

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

- Sufficient performance may not be exhibited at extremely cold locations (where water freezes).

70%

SW-505D-S/505D-W

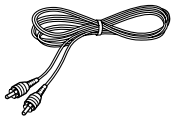
CONTENTS / ACCESSORIES

Contents

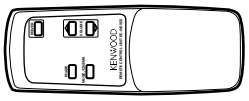
SPECIFICATIONS .....Front cover
CONTENTS / ACCESSORIES 2
ADJUSTMENT 2
PC BOARD 3
SCHEMATIC DIAGRAM 5
EXPLODED VIEW 8
PARTS LIST.....9

Accessories

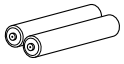
Pin-plug cord (1)
(E30-5860-08)



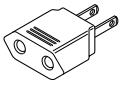
Remote control unit (1)
(A70-0409-08)



Batteries (R03/ AAA)



AC plug adaptor (1)
(E03-0115-05)

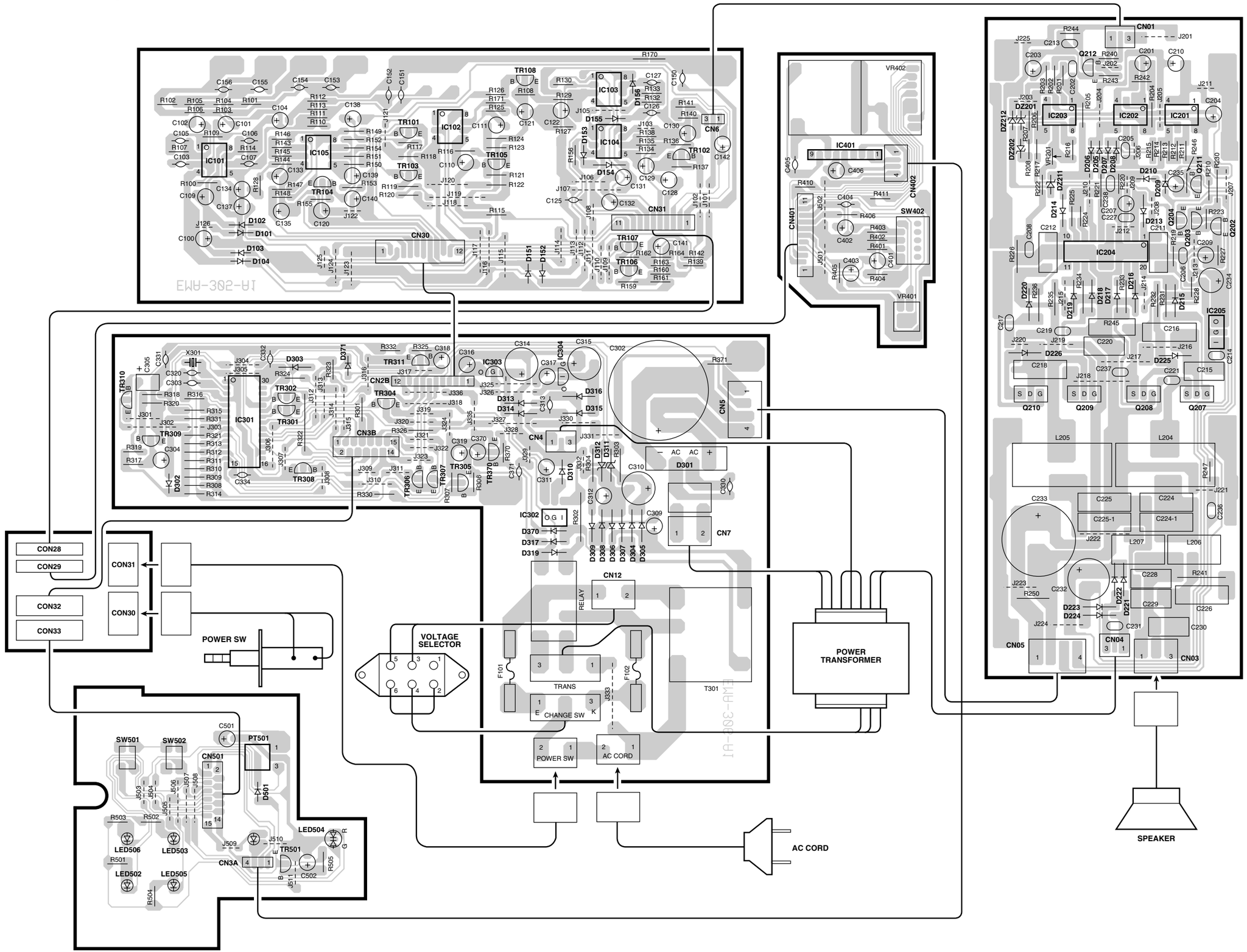


* Use to adapt the plug on the power cord to the shape of the wall outlet.
(Accessory only for regions where use is necessary)

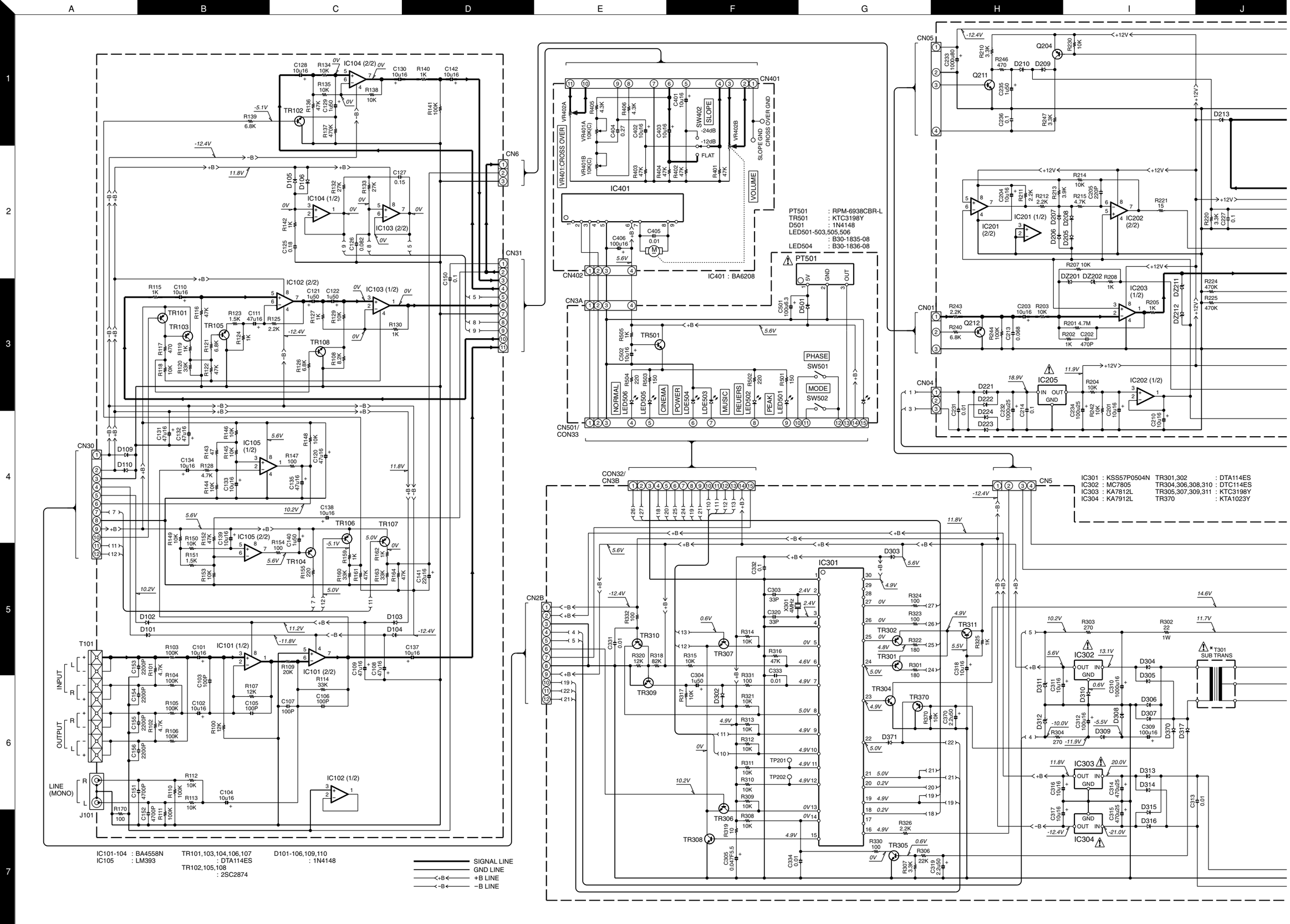
ADJUSTMENT

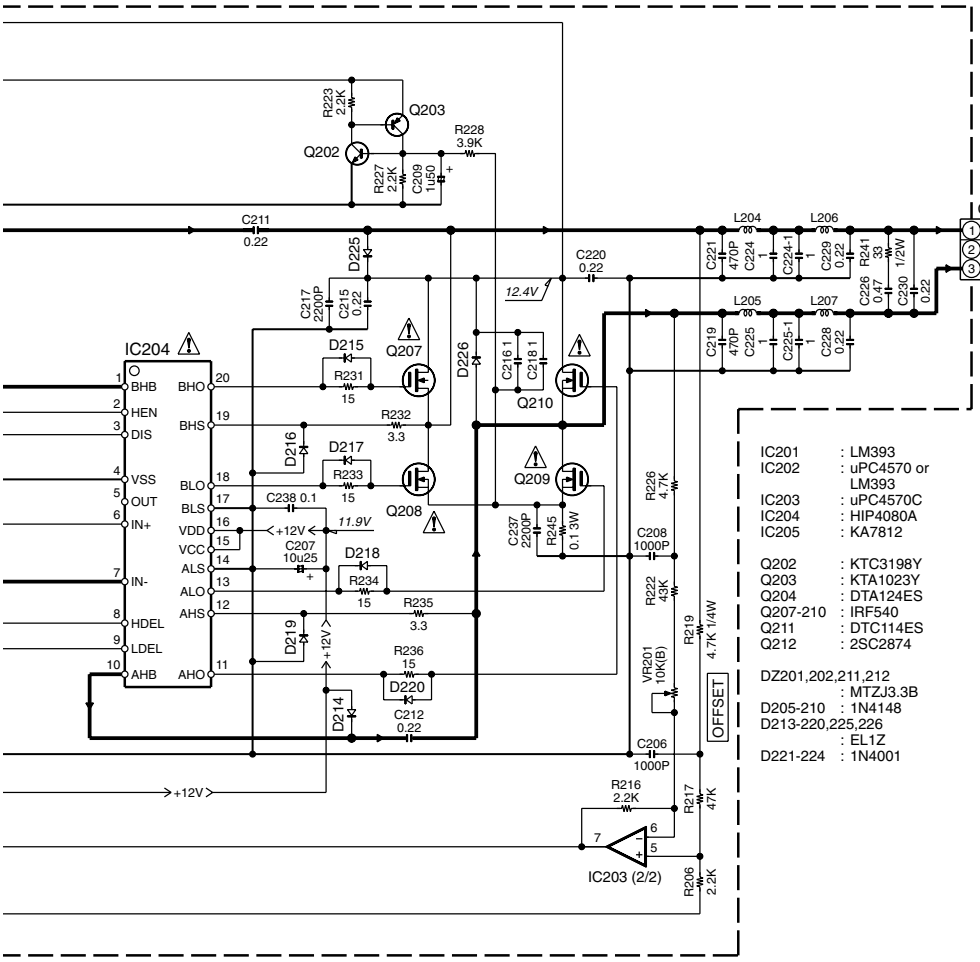
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINT	ALIGN FOR	FIG.
1	OFF SET	–	Connect a DC voltmeter to speaker terminal.	VOLUME: 0	VR201	0 mV	

PC BOARD (Component side view)

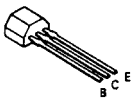


Refer to the schematic diagram for the value of resistors and capacitors.

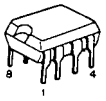

IC101-104 : BA4558N
IC105 : LM393
TR101,103,104,106,107 : DTA114ES
TR102,105,108 : 2SC2874
D101-106,109,110 : 1N4148
SIGNAL LINE
GND LINE
+B LINE
−B LINE
PT501 : RPM-6938CBR-L
TR501 : KTC3198Y
D501 : 1N4148
LED501-503,505,506 : B30-1835-08
LED504 : B30-1836-08
IC401 : BA6208
IC301 : KSS57P0504N
IC302 : MC7805
IC303 : KA7812L
IC304 : KA7912L
TR301,302 : DTA114ES
TR304,306,308,310 : DTC114ES
TR305,307,309,311 : KTC3198Y
TR370 : KTA1023Y
T301 SUB TRANS
INPUT
OUTPUT
LINE (MONO)
CN30
CN6
CN31
CN401
CN402
CN3A
CN501/ CON33
CON32/ CN3B
CN2B
CN05
CN01
CN04
CN5
IC101 (1/2)
IC101 (2/2)
IC102 (2/2)
IC102 (1/2)
IC103 (1/2)
IC103 (2/2)
IC104 (1/2)
IC104 (2/2)
IC105 (1/2)
IC105 (2/2)
IC201 (2/2)
IC202 (2/2)
IC203 (1/2)
IC205
PHASE SW501
MODE SW502
NORMAL
CINEMA
POWER
MUSIC
REUERS
PEAK
VOLUME
SLOPE
FLAT
CROSS OVER
SLOPE GND CROSS OVER GND



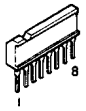
DTA114ES
DTA124ES
DTC114ES



UPC4570C



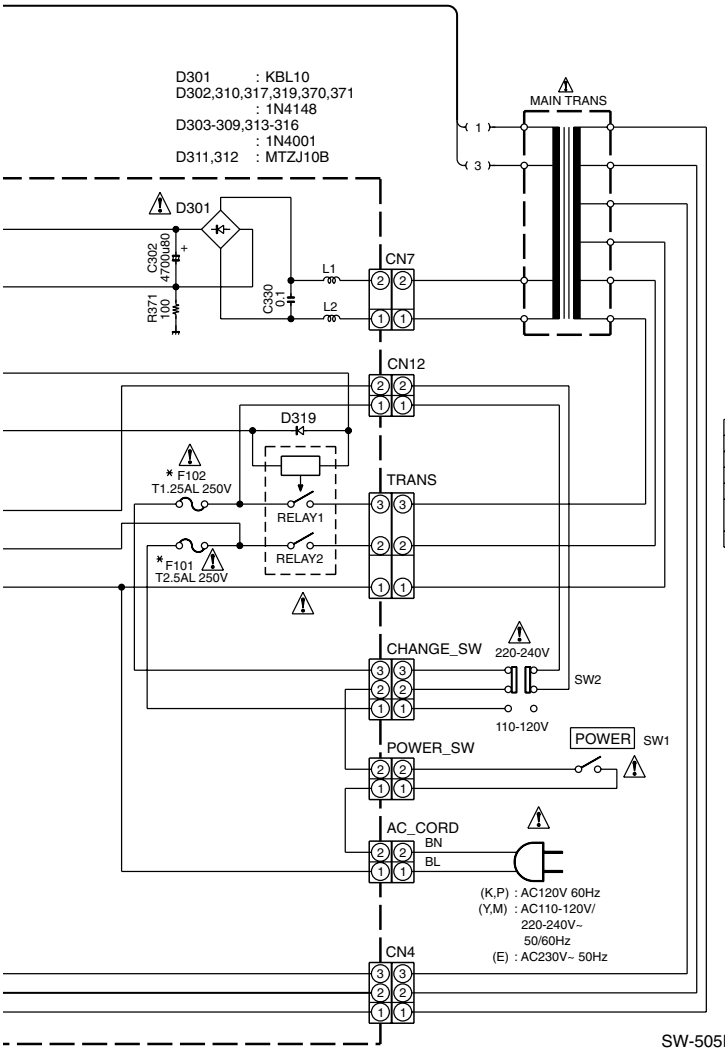
BA4558N



IC201 : LM393
IC202 : uPC4570 or LM393
IC203 : uPC4570C
IC204 : HIP4080A
IC205 : KA7812

Q202 : KTC3198Y
Q203 : KTA1023Y
Q204 : DTA124ES
Q207-210 : IRF540
Q211 : DTC114ES
Q212 : 2SC2874

DZ201,202,211,212 : MTZJ3.3B
D205-210 : 1N4148
D213-220,225,226 : EL1Z
D221-224 : 1N4001



D301 : KBL10
D302,310,317,319,370,371 : 1N4148
D303-309,313-316 : 1N4001
D311,312 : MTZJ10B

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

DESTINATION		F101	F102	T301	SW2
COUNTRY	ABB.				
U.S.A.	K	YES	NO	L07-3036-08	NO
CANADA	P				
PX	Y		YES		YES
GENERAL MARKET	M				
EUROPE	E	NO		L07-3037-08	NO

(K,P) : AC120V 60Hz
(Y,M) : AC110-120V/ 220-240V~ 50/60Hz
(E) : AC230V~ 50Hz

SW-505D

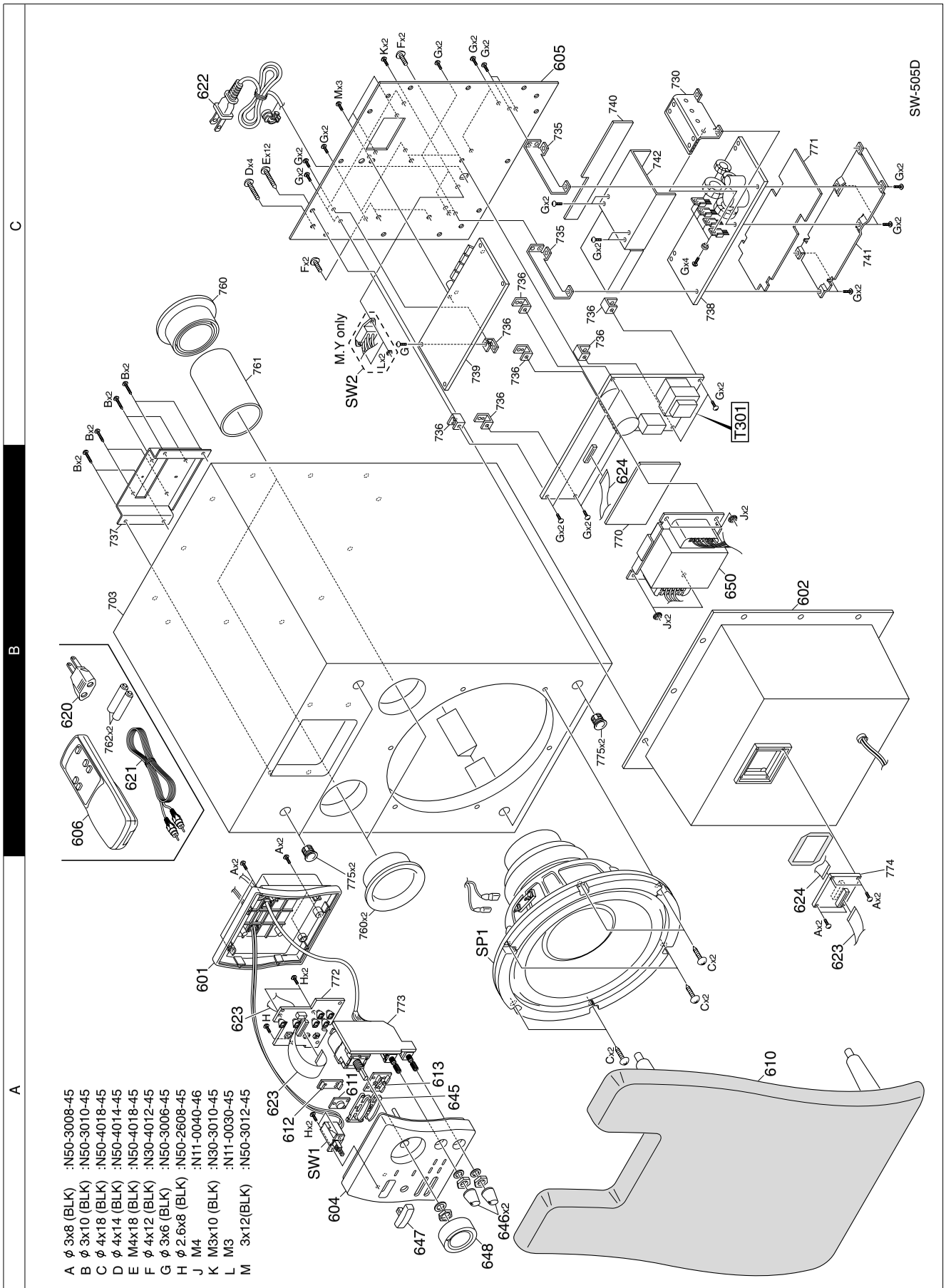
Y19-5880-20

SW-505D-S/505D-W

KENWOOD

SW-505D-S/505D-W

EXPLODED VIEW (UNIT)



Parts with exploded numbers larger than 700 are not supplied.

✻ New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

❶

Ref. No	Address	New Parts	Parts No.	Description		Destination	Remarks
SW-505D W:WHITE/B:BLACK							
601	1A	✻	A02-2538-08	CONTROL BOX	BDCC-0006-01	B	
601	1A	✻	A02-2541-08	CONTROL BOX	BDCC-0007-01	W	
602	2B	✻	A02-2539-08	AMP BOX	BDCC-0003-01		
604	1A	✻	A21-3341-08	CONTROL PANEL	BDCC-0004-01	B	
604	1A	✻	A21-3343-08	CONTROL PANEL	BDCC-0005-01	W	
605	2C	✻	A23-5507-08	CHASSIS/REAR	BCCS-0571-01	KP	
605	2C	✻	A23-5508-08	CHASSIS/REAR	BCCS-0572-02	Y	
605	2C	✻	A23-5509-08	CHASSIS/REAR	BCCS-0572-01	M	
605	2C	✻	A23-5510-08	CHASSIS/REAR	BCCS-0571-02	E	
606	1B	✻	A70-0409-08	REMOTE CONTROL			
610	2A	✻	B06-1497-08	GRILLE ASSY		B	
610	2A	✻	B06-1498-08	GRILLE ASSY		W	
611	1A	✻	B19-1289-08	SENSOR LENS	BDDS-0111-01		
612	1A	✻	B19-1290-08	POWER/PEAK LENS,BDDS-0110-01			
613	1A	✻	B19-1291-08	CINEMA/NORM LENS,BDDS-0112-01			
⚠ 620	1B		E03-0115-05	AC PLUG ADAPTER		M	
621	1B	✻	E30-5860-08	AUDIO CORD			
⚠ 622	1C	✻	E30-5863-05	POWER CORD	WPLU-HPC30008	KP	
⚠ 622	1C	✻	E30-5864-05	POWER CORD	WPLU-HPC30007	Y	
⚠ 622	1C	✻	E30-5865-05	POWER CORD	WPLU-HPC30005	ME	
623	1A,2A	✻	E36-0367-08	CARD CABLE	WFCB-FPC01503		
624	2A,2B	✻	E36-0368-08	CARD CABLE	WFCB-FPC01504		
645	1A	✻	K29-0587-08	CONTROL BUTTON	BDBT-0015-01	B	
645	1A	✻	K29-0588-08	CONTROL BUTTON	BDBT-0014-01	W	
646	2A		K23-0542-08	CONTROL KNOB	BDKN-0020-01	B	
646	2A		K23-0546-08	CONTROL KNOB	BDKN-0021-01	W	
647	1A		K29-0585-08	POWER BUTTON	BDBT-0012-01	B	
647	1A		K29-0589-08	POWER BUTTON	BDBT-0013-01	W	
648	2A		K29-0586-08	VOLUME KNOB	BDKN-0018-01	B	
648	2A		K29-0591-08	VOLUME KNOB	BDKN-0019-01	W	
⚠ 650	2B	✻	L07-3032-05	MAIN TRANS	TTG2-EPT60010	KPMY	
⚠ 650	2B	✻	L07-3035-05	MAIN TRANS	TTG2-EPT60011	E	
-			B46-0310-03	WARRANTY CARD		E	
-			B46-0328-03	WARRANTY CARD		KY	
-			B46-0347-03	WARRANTY CARD		P	
-			B59-1104-00	SERVICE STATIONS' LIST		Y	
-		✻	B61-1083-10	INSTRUCTION MANUAL		KPE	
-		✻	B61-1084-00	INSTRUCTION MANUAL		YM	
-			H10-8176-08	POLYSTYRENE FIXTURE,TOP,FRNT			
-			H10-8177-08	POLYSTYRENE FIXTURE,BTM,FRNT			
-			H10-8189-08	POLYSTYRENE FIXTURE,TOP,REAR			
-			H10-8190-08	POLYSTYRENE FIXTURE,BTM,REAR			
-		✻	H51-1527-08	ITEM CARTON CASE		KPYE	
-		✻	H51-1528-08	ITEM CARTON CASE		M	
SP1	2A	✻	T10-0962-05	WOOFER			
⚠ SW1	1A		S90-0203-08	POWER SWITCH	ESPP-KDCA04		
⚠ SW2	1C		S62-0214-08	SLIDE SWITCHT	ESSL-SSB040	MY	
ELECTRICAL PARTS							
LED501-3		✻	B30-1835-08	LED	SDLB-SLR34V3		
LED504			B30-1836-08	LED	SDLB-SPR39MV		
LED505,6		✻	B30-1835-08	LED	SDLB-SLR34V3		
C101,2			CE04CW1C100M	ELECTRO	10UF 16WV		

L : Scandinavia **K :** USA **P :** Canada **R :** Mexico **C :** China **I :** Malaysia
Y : PX(Far East,Hawaii) **T :** England **E :** Europe **G :** Germany **V :** China(Shanghai)
Y : AAFES(Europe) **X :** Australia **Q :** Russia **H :** Korea **M :** Other Areas ⚠ indicates safety critical components .

✻ New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

❷

Ref. No	Address	New Parts	Parts No.	Description			Destination	Remarks
C103			CK45FB1H101K	CERAMIC	100PF	K		
C104			CE04CW1C100M	ELECTRO	10UF	16WV		
C105-7			CK45FB1H101K	CERAMIC	100PF	K		
C108			CE04CW1C470M	ELECTRO	47UF	16WV		
C109			CE04CW1C470M	ELECTRO	47UF	16WV		
C110			CE04CW1C100M	ELECTRO	10UF	16WV		
C111			CE04CW1C470M	ELECTRO	47UF	16WV		
C120			CE04CW1C470M	ELECTRO	47UF	16WV		
C121,2			CE04CW1H010M	ELECTRO	1.0UF	50WV		
C125			C91-0213-08	FILM	0.18UF	63WV		
C126		✻	C90-5132-08	FILM	0.082UF	63WV		
C127		✻	C90-5133-08	FILM	0.15UF	63WV		
C128			CE04CW1C100M	ELECTRO	10UF	16WV		
C129			CE04CW1H010M	ELECTRO	1.0UF	50WV		
C130			CE04CW1C100M	ELECTRO	10UF	16WV		
C131,2			CE04CW1C470M	ELECTRO	47UF	16WV		
C133,4			CE04CW1C100M	ELECTRO	10UF	16WV		
C135			CE04CW1C470M	ELECTRO	47UF	16WV		
C137-9			CE04CW1C100M	ELECTRO	10UF	16WV		
C140			CE04CW1H010M	ELECTRO	1.0UF	50WV		
C141			CE04CW1C220M	ELECTRO	22UF	16WV		
C142			CE04CW1C100M	ELECTRO	10UF	16WV		
C150			CK45FB1H104K	CERAMIC	0.10UF	K		
C151,2			CK45FF1H472Z	CERAMIC	4700PF	Z		
C153-6			CK45FB1H222K	CERAMIC	2200PF	K		
C201			CE04CW1C100M	ELECTRO	10UF	16WV		
C202			CK45FB1H471K	CERAMIC	470PF	K		
C203,4			CE04CW1C100M	ELECTRO	10UF	16WV		
C205			CK45FB1H221K	CERAMIC	220PF	K		
C206			CK45FB1H102K	CERAMIC	1000PF	K		
C207			CE04CW1E100M	ELECTRO	10UF	25WV		
C208			CK45FB1H102K	CERAMIC	1000PF	K		
C209			CE04CW1H010M	ELECTRO	1.0UF	50WV		
C210			CE04CW1C100M	ELECTRO	10UF	16WV		
C211,2		✻	C90-5135-08	FILM	0.22UF	250WV		
C213		✻	C90-5136-08	FILM	0.068UF	250WV		
C214			CK45FB1H104K	CERAMIC	0.10UF	K		
C215		✻	C90-5135-08	FILM	0.22UF	250WV		
C216		✻	C90-5137-08	FILM	1UF	250WV		
C217			CK45FB1H222K	CERAMIC	2200PF	K		
C218		✻	C90-5137-08	FILM	1UF	250WV		
C219			CK45FB1H471K	CERAMIC	470PF	K		
C220		✻	C90-5135-08	FILM	0.22UF	250WV		
C221			CK45FB1H471K	CERAMIC	470PF	K		
C224-1		✻	C90-5137-08	FILM	1UF	250WV		
C224,5		✻	C90-5137-08	FILM	1UF	250WV		
C225-1		✻	C90-5137-08	FILM	1UF	250WV		
C226		✻	C90-5138-08	FILM	0.47UF	250WV		
C227			CK45FB1H104K	CERAMIC	0.10UF	K		
C228,-30		✻	C90-5135-08	FILM	0.22UF	250WV		
C231			CK45FB1H103K	CERAMIC	0.010UF	K		
C232			CE04DW1E102M	ELECTRO	1000UF	25WV		
C233		✻	C90-5139-08	ELECTRO	1000UF	80WV		
C234			CE04CW1E101M	ELECTRO	100UF	25WV		
C235			CE04CW1H010M	ELECTRO	1.0UF	50WV		

L : Scandinavia **K :** USA **P :** Canada **R :** Mexico **C :** China **I :** Malaysia
Y : PX(Far East,Hawaii) **T :** England **E :** Europe **G :** Germany **V :** China(Shanghai)
Y : AAFES(Europe) **X :** Australia **Q :** Russia **H :** Korea **M :** Other Areas ⚠ indicates safety critical components .

SW-505D-S/505D-W

PARTS LIST

✻ New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

❸

Ref. No	Address	New Parts	Parts No.	Description			Destination	Remarks
C236			CK45FB1H104K	CERAMIC	0.10UF	K		
C237			CK45FB1H222K	CERAMIC	2200PF	K		
C238			CK45FB1H104K	CERAMIC	0.10UF	K		
C302		✻	C90-5140-08	ELECTRO	4700UF	80WV		
C303			CC45FCH1H330J	CERAMIC	33PF	J		
C304			CE04CW1H010M	ELECTRO	1.0UF	50WV		
C305		✻	C90-5141-08	BACKUP C	0.047F	5.5WV		
C309			CE04CW1C101M	ELECTRO	100UF	16WV		
C310			CE04CW1C102M	ELECTRO	1000UF	16WV		
C311			CE04CW1C100M	ELECTRO	10UF	16WV		
C312			CE04CW1C101M	ELECTRO	100UF	16WV		
C313			CK45FB1H103K	CERAMIC	0.010UF	K		
C314,5			CE04KW1E471M	ELECTRO	470UF	25WV		
C316-8			CE04CW1C100M	ELECTRO	10UF	16WV		
C319			CE04CW1H2R2M	ELECTRO	2.2UF	50WV		
C320			CC45FCH1H330J	CERAMIC	33PF	J		
C330			CK45FB1H104K	CERAMIC	0.10UF	K		
C331			CK45FB1H103K	CERAMIC	0.010UF	K		
C332			CK45FB1H104K	CERAMIC	0.10UF	K		
C333,4			CK45FB1H103K	CERAMIC	0.010UF	K		
C370			CE04CW1H2R2M	ELECTRO	2.2UF	50WV		
C401-3			CE04CW1C100M	ELECTRO	10UF	16WV		
C404		✻	C90-5142-08	FILM	0.27UF	63WV		
C405			CK45FB1H103K	CERAMIC	0.010UF	K		
C406			CE04CW1C100M	ELECTRO	10UF	16WV		
C501			CE04CW0J101M	ELECTRO	100UF	6.3WV		
C502			CE04CW1C100M	ELECTRO	10UF	16WV		
CN3B		✻	E41-0502-08	FPC CONNECTOR	HFPC-8370-157			
CN501		✻	E41-0502-08	FPC CONNECTOR	HFPC-8370-157			
CON32,3		✻	E41-0502-08	FPC CONNECTOR	HFPC-8370-157			
J101		✻	E63-0205-08	RCA JACK	JJR2-JE020059			
T101			E70-0205-08	SCREW TERMINAL	FTS8-PPT00803			
⚠ F101			F53-0224-08	FUSE 2.5A	FFAD-CUL522R5		KPMY	
⚠ F102			F53-0223-08	FUSE 1.25A	FFAD-CUL521R2		MEY	
L1 ,2		✻	L90-0404-08	MOIDED TYPE COIL	ICCM-EMI1630			
L204,5		✻	L90-0405-08	COIL	ICCR-ERC02704			
L206,7		✻	L90-0406-08	COIL	ICCR-ERC01802			
⚠ T301	2C	✻	L07-3036-08	SUB TRANS	TTG2-EPT60012		KPYM	
⚠ T301	2C	✻	L07-3037-08	SUB TRANS	TTG2-EPT60013		E	
X301		✻	L71-0102-08	CRYSTAL,4MHZ	EXVB-4R000			
R241			RD14BB2H330J	RD	33	J 1/2W		
R245			RS14GB3F0R1K	FL-PROOF RS	0.1	K 3W		
R302			RD14BB3A220J	RD	22	J 1W		
VR201		✻	R32-0403-08	TRIMMING POT	RSVB-CET68103			
VR401		✻	R31-0420-08	POTENTIOMETER	RVRM-SBR2060			
VR402		✻	R31-0421-08	POTENTIOMETER	RVRM-SBR2001			
⚠ RELAY		✻	S76-0209-08	RELAY	ER22-G5PA2-12			
SW402		✻	S60-0203-08	ROTARY	ESRL-10H13NS2			
SW501,2		✻	S70-0204-08	TACT SWITCH	ESTS-KHH10910			
D101-6			1N4148	DIODE				
D109,10			1N4148	DIODE				
D151-6			1N4148	DIODE				

L : Scandinavia **K** : USA **P** : Canada **R** : Mexico **C** : China **I** : Malaysia
Y : PX(Far East,Hawaii) **T** : England **E** : Europe **G** : Germany **V** : China(Shanghai)
Y : AAFES(Europe) **X** : Australia **Q** : Russia **H** : Korea **M** : Other Areas ⚠ indicates safety critical components .

✻ New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

❹

Ref. No	Address	New Parts	Parts No.	Description		Destination	Remarks
D205-10			1N4148	DIODE			
D213-20			EL1Z	DIODE	SDFB-EL1Z		
D221-4			1N4001	DIODE			
D225,6			EL1Z	DIODE	SDFB-EL1Z		
⚠ D301			KBL10	DIODE			
D302			1N4148	DIODE			
D303-9			1N4001	DIODE			
D310			1N4148	DIODE			
D311,2			MTZJ10B	ZENER DIODE			
D313-6			1N4001	DIODE			
D317			1N4148	DIODE			
D319			1N4148	DIODE			
D370,1			1N4148	DIODE			
D501			1N4148	DIODE			
DZ201,2			MTZJ3.3B	ZENER DIODE			
DZ211,2			MTZJ3.3B	ZENER DIODE			
IC101-4			BA4558N	IC(OP AMP X2)			
IC105			LM393	IC			
IC201			LM393	IC			
IC202,3			UPC4570C	IC(OP AMP X2)			
⚠ IC204		✻	HIP4080A	IC			
⚠ IC205		✻	KA7812	IC			
IC301		✻	KS57P0504N	IC			
⚠ IC302			MC7805	IC			
⚠ IC303		✻	KA7812L	IC			
⚠ IC304		✻	KA7912L	IC			
IC401			BA6208	IC(MOTOR DRIVER)			
⚠ PT501		✻	RPM-6938CBR-L	IC			
Q202			KTC3198Y	TRANSISTOR			
Q203			KTA1023Y	TRANSISTOR			
Q204			DTA124ES	TRANSISTOR			
⚠ Q207-10		✻	IRF540	FET			
Q211			DTC114ES	TRANSISTOR			
Q212		✻	2SC2874	TRANSISTOR			
TR101			DTA114ES	TRANSISTOR			
TR102		✻	2SC2874	TRANSISTOR			
TR103,4			DTA114ES	TRANSISTOR			
TR105		✻	2SC2874	TRANSISTOR			
TR106,7			DTA114ES	TRANSISTOR			
TR108		✻	2SC2874	TRANSISTOR			
TR301,2			DTA114ES	TRANSISTOR			
TR304			DTC114ES	TRANSISTOR			
TR305			KTC3198Y	TRANSISTOR			
TR306			DTC114ES	TRANSISTOR			
TR307			KTC3198Y	TRANSISTOR			
TR308			DTC114ES	TRANSISTOR			
TR309			KTC3198Y	TRANSISTOR			
TR310			DTC114ES	TRANSISTOR			
TR311			KTC3198Y	TRANSISTOR			
TR370			KTA1023Y	TRANSISTOR			
TR501			KTC3198Y	TRANSISTOR			

L : Scandinavia **K** : USA **P** : Canada **R** : Mexico **C** : China **I** : Malaysia
Y : PX(Far East,Hawaii) **T** : England **E** : Europe **G** : Germany **V** : China(Shanghai)
Y : AAFES(Europe) **X** : Australia **Q** : Russia **H** : Korea **M** : Other Areas ⚠ indicates safety critical components .

Note:
Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION
14-6,Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150-8501 Japan
KENWOOD SERVICE CORPORATION
P.O BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745, U.S.A.